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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,725	11/26/2003	Hongxia Jin	ARC920030051US1	9783
67232 7590 06/18/2008 CANTOR COLBURN, LLP - IBM ARC DIVISION 20 Church Street 22nd Floor Hartford, CT 06103				
EXAMINER				
YALEW, FIKREMARIAM A				
ART UNIT		PAPER NUMBER		
2136				
MAIL DATE		DELIVERY MODE		
06/18/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/723,725

Applicant(s)

JIN ET AL.

Examiner

Fikremariam Yalew

Art Unit

2136

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 21-31 and 41-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 21-31 and 41-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The office action is in reply to an amendment filed on 03/20/2008. Claims 1-2, 21-22 and 41-51 have been amended. Claims 1-11, 21-31 and 41-51 are pending and have been examined.
2. Examiner withdrawal the previous U.S.C 101 and U.S.C 112 rejections based on applicant amendment.

Response to Arguments

3. Applicant's arguments with respect to claims 1-11, 21-31 and 41-51 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5,7-9,21-25,27-29,41-45 and 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCOTT OAKS (hereinafter referred as Scott) (Java security May 2001 XP002321663) in view of Lee et al (hereinafter referred as Lee) US Pub No 2002/0147763 A1

6. As per claim 1,21,41: SCOTT discloses a method/system/computer program for running a tamper-resistant application in a trusted environment, comprising: defining a trusted virtual machine environment ((See pages 268,273(i.e., Java virtual machine provides security and is therefore to be trusted) that contains a trusted dictionary for protecting data (See pages 272-273 i.e., the file system, security manager of Java); verifying the integrity of the application (See page 271-273(i.e., verify signed class); wherein, if the application is tampered with, the trusted virtual machine environment prevents the application from accessing the secret in the trusted dictionary, thus disabling the normal operation of the application(See page 272-273).

Scott does not explicitly disclose wherein the trusted dictionary comprises a subclass of a standard base class dictionary using any class that allows a storing and a retrieving of data values, wherein the trusted dictionary contains keywords and values encrypted with a secret includes a list of public keys(See 0196-0197,0124,0148).

However Lee discloses wherein the trusted dictionary comprises a subclass of a standard base class dictionary using any class that allows a storing and a retrieving of data values, wherein the trusted dictionary contains keywords and values encrypted with a secret includes a list of public keys.

Therefore it would have been obvious to one having ordinary skill in the art at that time the invention was made to modify the teaching method of Lee within Scott method in order to enhance security of the system.

7. As per claim 2,22,42: the combination of Scott and Lee disclose the method/system/program product wherein if the integrity of the application is confirmed, the

trusted virtual machine environment allows the application to access the secret in the trusted dictionary, thus enabling the normal operation of the application (See Scott page 273).

8. As per claim 3,23,43: the combination of Scott and Lee disclose the method/system/program product wherein defining the trusted virtual machine environment comprises defining a trusted bundle for protecting a programming code of the application (See pages Scott 272-275).

9. As per claim 4,24,44: the combination of Scott and Lee disclose the method/system/program product wherein protecting the programming code comprises encrypting the programming code (See Scott 273-273).

10. As per claim 5,25,45: the combination of Scott and Lee disclose the method/system/program product wherein the trusted virtual machine environment decrypts the encrypted programming code using a decryption key from a media key block associated with the application (See Scott 269-270).

11. As per claim 7,27,47: the combination of Scott and Lee disclose the method/system/program product wherein defining the trusted bundle comprises restricting access to instruction codes of the trusted bundle (See Scott 269-270).

12. As per claim 8,28,48: the combination of Scott and Lee disclose the method/system/program product further comprising encrypting the trusted dictionary (See Scott 271-273).

13. As per claim 9,29,49: the combination of Scott and Lee disclose the method/system/program product wherein defining the trusted virtual machine environment comprises defining at least two trusted bundles; and wherein the trusted dictionary is shared

between at least some of the at least two trusted bundles, to maintain communication integrity between the at least two trusted bundles (See Scott 271-273).

14. Claims 6,26,46 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCOTT OAKS (hereinafter referred as Scott) (Java security May 2001 XP002321663) in view of Lee et al (hereinafter referred as Lee) US Pub No 2002/0147763 A1 and further in view of Levy et al (hereinafter referred as Levy) US Patent No 6,092,147

15. As per claim 6,26,46: the combination of Scott and Lee disclose claims 1,21,41 as recited above. Scott and Lee do not explicitly teach the method/ system/program product wherein defining the trusted virtual machine environment comprises using a security chip. However Levy teaches the method wherein defining the trusted virtual machine environment comprises using a security chip (See col 2 lines 38). Therefore it would have been obvious to one having ordinary skill in the art at that time the invention was made to modify the teaching method of Levy within Scott and Lee method in order to provide security sensitive product with a VM system.

17. Claims 10-11,30-31 and 50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCOTT OAKS (hereinafter referred as Scott) (Java security May 2001 XP002321663) in view of Lee et al (hereinafter referred as Lee) US Pub No 2002/0147763 A1 and further in view of Watson (US Pub No 2005/0204126 A1)

18. As per claims 10,30,50: the combination of Scott and Lee disclose claims 1,21,41 as recited above. Scott and Lee do not explicitly teach the method/ system/program product wherein the application comprises a player that plays copy-protected media. However Watson teaches the method wherein the application comprises a player that plays copy-protected media (See Watson 0021, 0029).

Therefore it would have been obvious to one having ordinary skill in the art at that time the invention was made to modify the teaching method of Watson within Scott and Lee method in order to enhance security of the system.

19. As per claims 11,31,51: the combinations of Scott-Lee-Watson disclose claims 10,30,50 as recited above. Scott-Lee-Watson further teach the method/ system/program product wherein the trusted dictionary contains one or more decryption keys to decrypt the copy-protected media (See Watson 0040, 0047).

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Moazzami Nasser, can be reached on 5712738300. The fax phone number for the organization where this application or proceeding is assigned is 571-272-4195.

Art Unit: 2136

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Fikremariam Yalew
06/16/2008
FA

Art Unit 2136

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